

MIAMI-SOUTH FLORIDA

National Weather Service

Forecast Office

<http://www.weather.gov/miami>

2021 Severe Weather Awareness Week

Friday, February 5th is Temperature Extremes and Wildfire Awareness Day

Although a mild and sunny climate may be considered to be one of South Florida's greatest natural assets, extremes of heat and cold can occur in South Florida. These extremes can be harmful, and even fatal, if people do not take necessary precautions to protect life and property. The heat and humidity of our summer months can combine to cause temperatures to feel more like 105 degrees on many days, presenting a significant health risk even to the average floridian who is



used to our hot and humid summers. Heat index values in South Florida rarely reach highly dangerous values of around 110 degrees, but on the few days when they do, the risk of life-threatening heat stroke increases dramatically. A recent example of these life threatening temperatures occurring in South Florida is on July 25th, 2017, heat index values near 110 degrees in Miami Beach contributed to a total of 15 people being treated for heat-related illnesses.

The most common cases of heat exposure involve school children, especially during the hot summer months when outdoor activities are more common (Figure 1). However, anyone is vulnerable to heat exposure if proper precautions are not taken. Heat-exposure-related incidents are notoriously under-reported, and it's likely that many cases of heat exposure occur yearly in South Florida due to the persistent heat and humidity common much of the year.

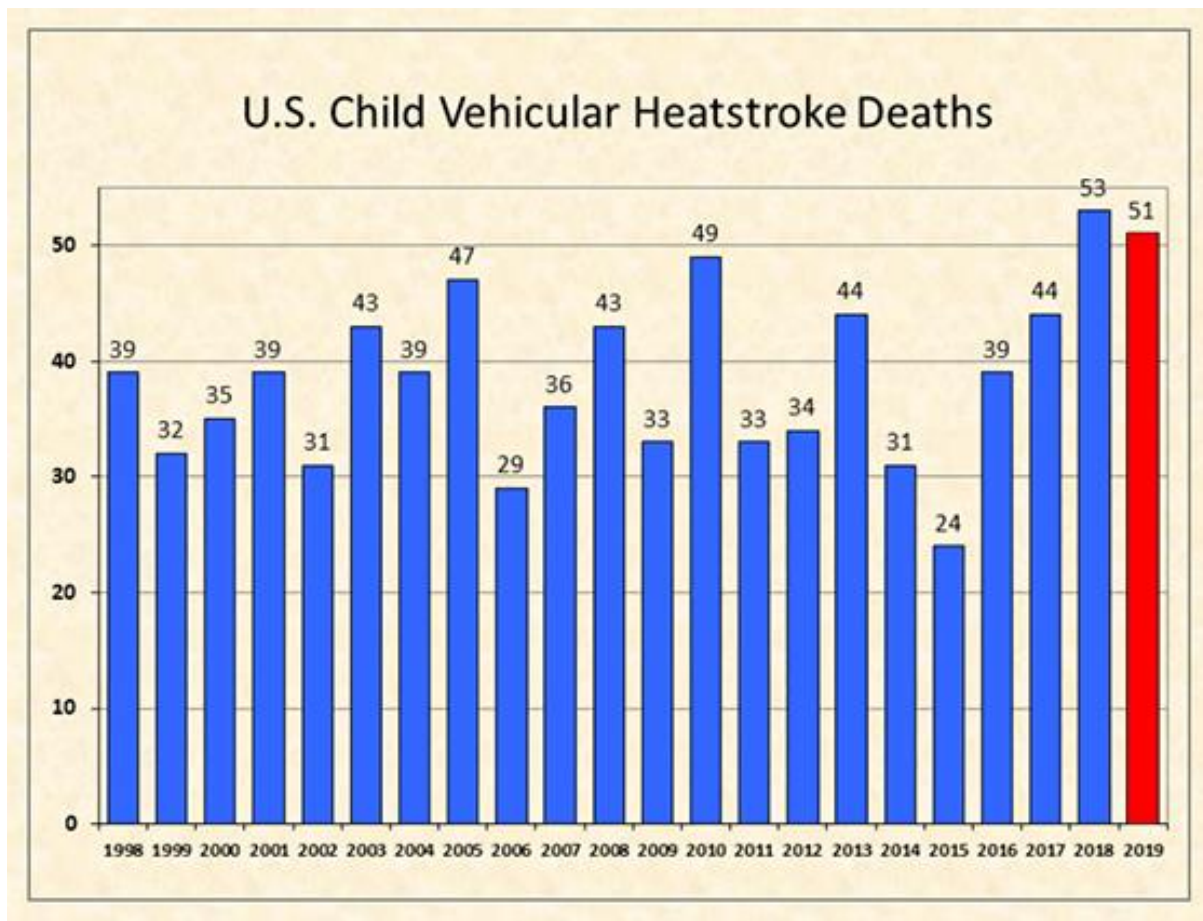


Figure 1: Child vehicular heatstroke deaths in the U.S. from 1998-2019

It is never safe to leave a young child, disabled person, or pet locked in a car, even in the winter. If you have a toddler in your household, lock your cars, even in your own driveway. **Kids play in cars or wander outside and get into a car and can die in 10 minutes!** A reported 51 young children have died in hot cars in 2019! Cars can heat up quickly when left in the sun.

The number-one protection against heat exposure is simply to stay out of the heat, especially during the hottest times of the day. If outside, make sure to drink plenty of water and take frequent breaks in the shade. On average, extreme heat has killed more people in the last 10 years in the United States than any other weather phenomena. Remember these tips from the National Weather Service for staying safe in extreme heat:

Hydrate. Whether you feel thirsty or not, drink plenty of water to avoid becoming dehydrated, *especially* when you're working or exercising outside.

Educate yourself. Keep up with the latest temperature and heat index forecasts and

current readings (take actions to stay cool and safe when the temperature hits 85 degrees or the heat index hits 90 degrees). Know the warning signs of a heat illness, and how you can stay cool.

Act quickly when a heat illness is suspected. Seek medical attention immediately for any of these warning signs: cramping, rapid pulse, heavy sweating, hot red skin, dizziness, confusion, nausea, vomiting.

Take it easy. Anyone working or exercising outdoors should avoid overexertion, especially between the hours of 11 AM and 6 PM. Take hourly breaks in the shade or in air conditioning.



Never Leave Children, Disabled Adults or Pets in Parked Vehicles!!

Each year, dozens of children and untold numbers of pets left in parked vehicles die from hyperthermia. Hyperthermia is an acute condition that occurs when the body absorbs more heat than it can handle. Hyperthermia can occur even on a relatively mild day. Studies have shown that the temperature inside a parked vehicle can rapidly rise to a dangerous level for children, pets and even adults. Leaving the windows slightly open does not significantly decrease the heating rate. The effects can be more severe on children because their bodies warm at a faster rate than adults.

More information on heat safety can be found at the [NWS heat awareness page](#).

Although you can't feel it or see it, ultraviolet radiation can cause damage to the skin and eyes, even on seemingly cloudy days or in shady areas. Ultraviolet (UV) radiation is strong most of the year in subtropical latitudes such as South Florida. The peak hours of UV radiation are normally between 10 AM and 2 PM when the high sun angle allows

much of the energy to penetrate to the surface. The body's quick response to excessive UV radiation causes sunburn, which can happen in only a matter of minutes. Prolonged or excessive exposure has been proven to cause potentially fatal skin cancer or cataracts, a form of blindness. About 90 percent of all skin cancer cases are linked to UV radiation. Put on sunblock, especially on children, when planning to be outdoors for a prolonged period of time.

To find out how hot it feels, you can use the pictured chart (Figure 2) or the Heat Index calculator found at weather.gov/safety/heat-index.

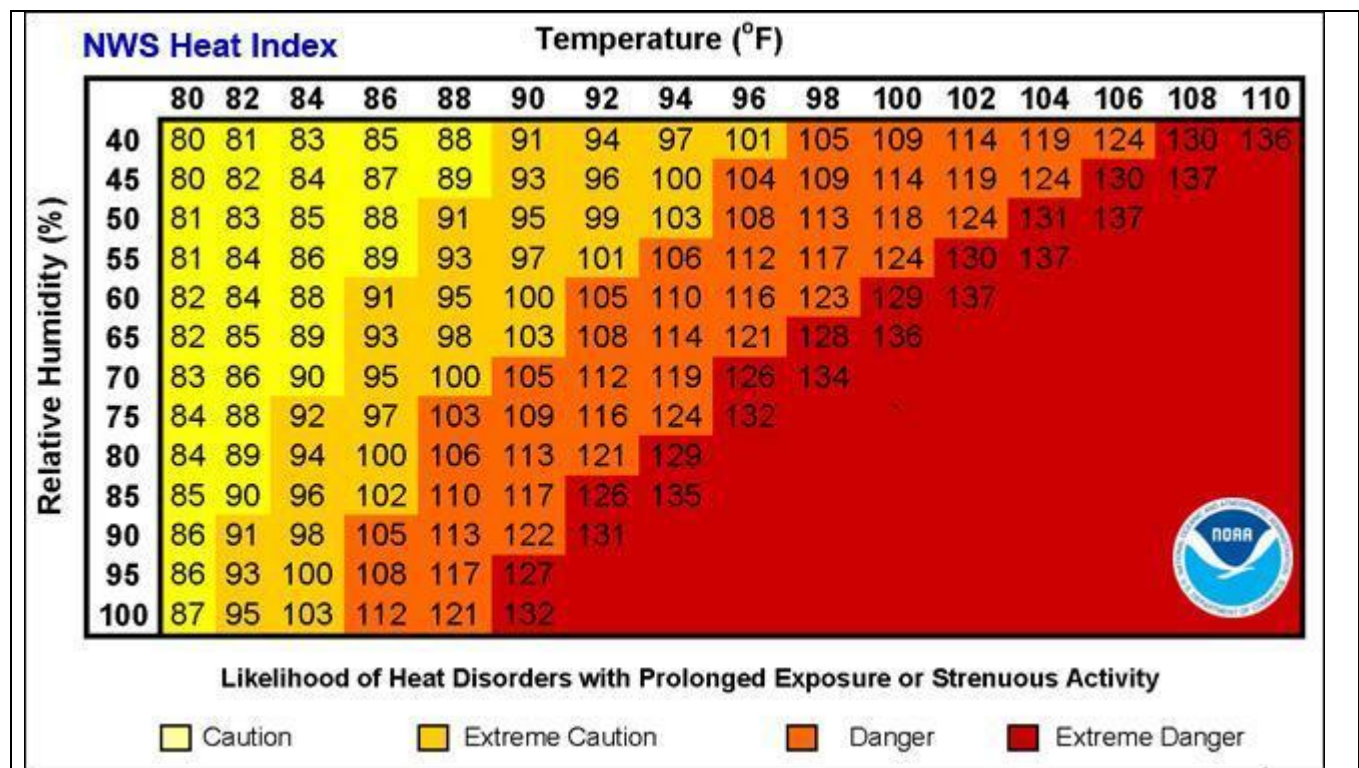


Figure 2: How to find out what the “feels like temperature”, or heat index, is via relative humidity values and the actual air temperature

In an area known for its mild winters, it's hard to imagine life-threatening cold, but freezing temperatures occur over at least parts of South Florida on a yearly basis. Although recent winters have been quite mild, past cold snaps can attest to the threat that cold temperatures can pose even in South Florida, so it is important to know warning signs of hypothermia (Figure 3). During the record-breaking cold episodes of January and December 2010, freezing temperatures occurred over almost all of South Florida, impacting both people and crops. Two people died as a result of hypothermia in January 2010, and an additional 7 people were injured from carbon monoxide poisoning

resulting from improper use of heating devices. South Florida's agricultural industry suffered losses in the millions of dollars as a direct result of the freezing temperatures.



Figure 3: Warning signs of hypothermia

NWS products such as Freeze watches and warnings, and Wind Chill watches, warnings and advisories, alert the public to the threat of potentially life-threatening cold temperatures.

During cold events, be extremely careful when using heating devices as deaths often occur as a result of faulty equipment or from improper use. Never use candles or cooking grills indoors, and be very careful with space heaters. Check your heating equipment at least once a year to make sure it is in proper working conditions. Check on the elderly to make sure they have adequate heating. Protect pets and plants during significant cold episodes.

WILDFIRES



Wildfire on a dry grass bed in Lake Okeechobee

The typically dry winter and spring of South Florida means that our area is prone to prolonged periods of little to no rainfall. This increases the threat of wildfires which peaks during the spring months from March through May when the dry season coincides with windy conditions, increasing sun angle, and warmer temperatures. Wildfires are not only most common in the Everglades, but also near the urban-wildland interface on the fringes of the urban areas of South Florida. This was the case during the spring of 2017 when several weeks of little rainfall led to severe drought conditions over Southwest Florida. The result was one of the worst wildfire seasons in recent memory in Southwest Florida. Three wildfires affected the Golden Gate Estates and Picayune State Forest in March and April of that year. Total damage caused by those wildfires was over \$4 million, with 18 structures destroyed. The wildfires triggered the evacuation of portions of Golden Gate and the closing of roads, schools, and businesses in the area. Fortunately, no deaths were reported and one man was injured while trying to save his property from the fire.

Another severe drought in April and May of 2020 contributed to a damaging wildfire in Golden Gate Estates in May 2020. Twelve residences were destroyed and 33 outbuildings were destroyed. Mandatory evacuation orders were issued for

approximately 2,000 residents in the area, and Interstate 75 was closed for a time due to the close proximity of the fire and the resulting smoke which reduced visibility.

Many South Florida wildfires are the result of human activities. Therefore, everyone is urged to follow the advice of forestry and fire safety officials to avoid causing wildfires. Be careful when discarding cigarettes, matches and barbecue coals and don't park vehicles in high grass where a hot catalytic converter or tailpipe can start a fire.

When conditions are conducive for the rapid spread of wildfires, the National Weather Service issues Fire Weather Watches and Red Flag Warnings which indicate the location and time of the greatest threat.

Local, state and national partners provide good information on wildfire awareness, such as the [Florida Forest Service](#) and [Firewise](#).

Information regarding extreme temperatures and weather conditions conducive to the spreading of wildfires can be obtained by visiting the National Weather Service Miami Forecast Office website at www.weather.gov/southflorida and clicking on the Local Hazards tab.